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18. A method for producing an SiO_2 blank, said method comprising:

forming SiO_2 particles in a burner flame associated with a deposition burner, said burner flame having a shape; and

depositing said particles under the effect of an electrical field on a deposition surface of a carrier rotating about a longitudinal axis thereof;

said deposition burner being supported for relative longitudinal reciprocation relative with respect to the developing blank between turn-around points thereon; and

said electrical field varying the shape of said burner flame during the reciprocation thereof dependent upon relative location of said deposition burner relative to the blank.

19. The method according to claim 18, wherein the burner flame has a width viewed in a direction parallel to the longitudinal axis of said carrier, said shape of the burner being varied so that the width of the burner flame varies dependent upon the location of said deposition burner during the reciprocation thereof relative to the blank.

20. The method according to claim 18, wherein said burner flame has a width viewed in a direction perpendicular to the longitudinal axis of said carrier, said shape of the burner being varied so that the width of the burner flame varies dependent upon location of said deposition burner during the reciprocation thereof relative to the blank.

21. The method according to claim 18, wherein said electrical field varies a width of said burner flame when said deposition burner is in an area of one of said turn-around points.

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22. The method according to claim 18, wherein a plurality of deposition burners are used that each have a burner flame with a shape and are spaced apart from one another longitudinally, and that are reciprocated in a predetermined sequence of movement in synchronism along the developing blank between turn-around points, the shape of the respective burner flames being changed in synchronism by said electrical field dependent upon location of said deposition burners during the sequence of movement.

23. The method according to claim 19, wherein a plurality of deposition burners are used that each have a burner flame with a shape and are spaced apart from one another longitudinally, and that are reciprocated in a predetermined sequence of movement in synchronism along the developing blank between turn-around points, the shape of the respective burner flames being changed in synchronism by said electrical field dependent upon location of said deposition burners during the sequence of movement.

24. The method according to claim 20, wherein a plurality of deposition burners are used that each have a burner flame with a shape and are spaced apart from one another longitudinally, and that are reciprocated in a predetermined sequence of movement in synchronism along the developing blank between turn-around points, the shape of the respective burner flames being changed in synchronism by said electrical field dependent upon location of said deposition burners during the sequence of movement.

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25. The method according to claim 21, wherein a plurality of deposition burners are used that each have a burner flame with a shape and are spaced apart from one another longitudinally, and that are reciprocated in a predetermined sequence of movement in synchronism along the developing blank between turn-around points, the shape of the respective burner flames being changed in synchronism by said electrical field dependent upon location of said deposition burners during the sequence of movement.

26. The method according to claim 22, wherein a plurality of electrical fields are associated with said burner flames and are varied in synchronism in a change cycle correlated with the sequence of movement of said deposition burners.

27. The method according to claim 26, wherein the change cycles of neighboring electrical fields are in phase.

28. The method according to claim 26, wherein the change cycles of neighboring electrical fields are phase-shifted.

29. The method according to claim 26, wherein the change cycles of neighboring electrical fields are in phase opposition.

30. The method according to claim 18, wherein said electrical field is adjusted so as to avoid a gas discharge.

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31. An apparatus for producing an SiO_2 blank, comprising

a carrier which is supported for rotation about its longitudinal axis,

at least one deposition burner for producing SiO_2 particles in a burner flame associated with said deposition burner, said SiO_2 particles forming a blank on said carrier,

a drive device providing relative reciprocation of said deposition burner along said carrier in a predetermined sequence of movement along the developing blank over a path of movement between turn-around points, and

a pair of electrodes connected to a source of voltage for producing an electrical field being operative with respect to said burner flame,

said electrical field being locally inhomogeneous along the path of movement, or being variable in time dependent upon location of said deposition burner during the sequence of movement of said deposition burner.

32. The apparatus according to claim 31, wherein said pair of electrodes is arranged laterally relative to said burner flame when viewed in direction parallel to the longitudinal axis of said carrier.

33. The apparatus according to claim 32, wherein said pair of electrodes is arranged laterally relative to said burner flame when viewed in a direction perpendicular to the longitudinal axis of said carrier.

34. The apparatus according to claim 32, wherein said pair of electrodes comprises plate electrodes arranged in a lower area of said burner flame.

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35. The apparatus according to claim 33, wherein said pair of electrodes comprises plate electrodes arranged in a lower area of said burner flame.

36. The apparatus according to claim 31, wherein said source of voltage and said drive device are connected to a control device by means of which said electrical field is varied based upon the position of said deposition burner during the sequence of movement thereof.

37. The apparatus according to claim 31, wherein said deposition burner is one of a plurality of deposition burners spaced apart from one another and connected to said drive device, said plurality of deposition burners being reciprocated in synchronism along said carrier in a predetermined sequence of movement between turn-around points, each of said deposition burners having associated therewith a pair of electrodes for producing said electrical field in an area of the burner flame assigned thereto.

38. The apparatus according to claim 36, wherein said deposition burner is one of a plurality of deposition burners spaced apart from one another and connected to said drive device, said plurality of deposition burners being reciprocated in synchronism along said carrier in a predetermined sequence of movement between turn-around points, each of said deposition burners having associated therewith a pair of electrodes for producing said electrical field in an area of the burner flame assigned thereto.